**Qns.3-** Write a program to implement Boundary-fill algorithm

**Objective:**To implement color filling algorithm using eight connected or four connectedapproach to fill color in a closed area.

**Source Code:-**

#include<graphics.h>

#include<stdio.h>

void boundary\_fill(int x, int y, int fill\_color, int bound\_color)

{

if(getpixel(x,y) != fill\_color && getpixel(x,y) != bound\_color)

{

putpixel(x,y,fill\_color);

delay(1);

boundary\_fill(x+1,y,fill\_color,bound\_color);

boundary\_fill(x,y-1,fill\_color,bound\_color);

boundary\_fill(x-1,y,fill\_color,bound\_color);

boundary\_fill(x,y+1,fill\_color,bound\_color);

boundary\_fill(x-1,y-1,fill\_color,bound\_color);

boundary\_fill(x+1,y-1,fill\_color,bound\_color);

boundary\_fill(x-1,y+1,fill\_color,bound\_color);

boundary\_fill(x+1,y+1,fill\_color,bound\_color);

}

}

int main( )

{

int gd=DETECT,gm;

initgraph(&gd,&gm,"");

line(100,100,250,100);

line(250,100,250,250);

line(250,250,400,250);

line(400,250,400,400);

line(248,400,400,400);

line(248,250,248,400);

line(100,100,100,250);

line(100,250,248,250);

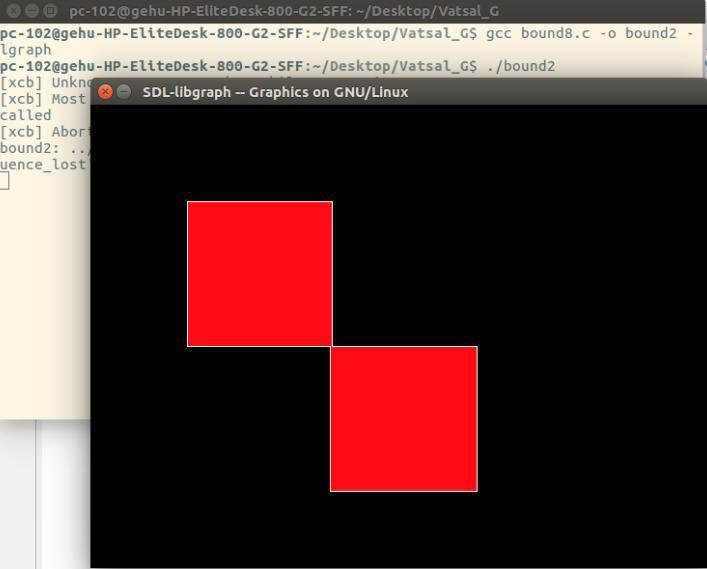
boundary\_fill(150,150,RED,WHITE);

getch( );

closegraph( );

}

**OUTPUT**

****